

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)
2. (Withdrawn-currently amended) ~~An etching medium according to Claim 1,~~ A process according to claim 8, wherein said etching medium is a paste which comprises
 - a. at least one solvent
 - b. thickeners and optionally
 - c. additives

and wherein said medium is effective at temperatures from 70 to 150 °C and/or can be activated by the input of energy and said etching paste is printable.

3. (Cancelled)
4. (Withdrawn-currently amended) ~~An etching medium according to Claim 3,~~ A process according to claim 8, wherein said etching component is sodium hydroxide, potassium hydroxide, ammonia, ethanolamine, ethylenediamine, tetraalkylammonium hydroxide or one of the ethylenediamine/ pyrocatechol ~~and~~ or ethanolamine/gallic acid mixtures.
5. (Withdrawn-currently amended) ~~An etching medium~~ A process according to Claim 2, wherein said solvent is water, isopropanol, diethylene glycol, dipropylene glycol, polyethylene glycols, 1,2-propanediol, 1,4-butanediol, 1,3-butanediol, glycerol, 1,5 pentanediol, 2-ethyl-1-hexanol, acetophenone, methyl-2-hexanone, 2-octanone, 4-hydroxy-4-methyl-2-pentanone, 1-methyl-2-pyrrolidone, ethylene glycol monobutyl ether, ethylene glycol monomethyl ether, triethylene glycol monomethyl ether, diethylene glycol monobutyl ether, dipropylene glycol monomethyl ether, carboxylic acid esters, as such or in a mixture in an amount of from 10 to 90% by weight, based on the total amount of the medium.

6. (Withdrawn-currently amended) ~~An etching medium~~ A process according to Claim 2, wherein said thickener is hydroxyalkylguar, xanthan gum, cellulose and/or ethyl hydroxypropyl or hydroxyethylcellulose, carboxymethylcellulose, sodium carboxymethylhydroxyethylcellulose, homopolymers or copolymers based on functionalised vinyl units of acrylic acid, acrylates or alkyl methacrylates (C₁₀-C₃₀), individually or in a mixture in an amount of from 0.5 to 25% by weight, based on the total amount of the etching medium.

7. (Withdrawn-currently amended) ~~An etching medium~~ A process according to Claim ~~2~~ 3, wherein said additive is a thixotropic agent, a flow-control agent, a deaerator or an adhesion promoter in an amount of from 0 to 2% by weight, based on the total amount.

8. (Previously presented) A process for the etching of silicon surfaces and layers, ~~wherein comprising applying a thickened, alkaline liquid said etching medium according to Claim 1 is applied~~ over the entire surface area of said surface or layer or in accordance with the etch structure mask specifically only to the areas of the surface where etching is desired

and ~~is removed~~ removing said medium ~~again~~ after an exposure time of from 30 s to 5 min

and wherein said etching medium comprises an etching component that is an organic or inorganic base having a concentration of from 5 to 48% by weight, based on the total amount of said etching medium.

9. (Previously presented) A process according to Claim 8, wherein said etching medium acts at a temperature in the range from 70 to 150°C and/or, ~~if necessary~~, is activated by the input of energy.

10. (Currently amended) A process according to Claim 9, wherein said etching medium is activated by exposure to heat (~~IR lamp, hotplate~~).

11. (Previously presented) A process according to Claim 8, wherein said etching medium is applied to the surface to be etched by a screen, template, pad, stamp, ink-jet or manual printing process or by a dispensing technique.

12. (Previously presented) A process according to Claim 8, wherein said etching medium is rinsed off using a solvent or solvent mixture when the etching is complete.
13. (Cancelled)
14. (Currently amended) A method for etching of silicon surfaces and layers for isolation of the pn transition in solar cells comprising applying a thickened, alkaline liquid ~~said etching medium according to Claim 1~~ to the surface of said silicon or a layer for isolation of the pn transition in a solar cell and wherein said etching medium comprises an etching component that is an organic or inorganic base having a concentration of from 5 to 48% by weight, based on the total amount of said etching medium.
15. (Cancelled)
16. (Previously presented) A method for etching of silicon surfaces and layers of solar cells for improving the antireflection behaviour comprising applying a thickened, alkaline liquid ~~said etching medium according to Claim 1~~ to the surface of said silicon or layer of a solar cell for improving the antireflection behaviour and wherein said etching medium comprises an etching component that is an organic or inorganic base having a concentration of from 5 to 48% by weight, based on the total amount of said etching medium.
17. (Withdrawn) A method for etching of silicon surfaces and layers in a process for the production of semiconductor components and circuits thereof comprising applying an etching medium according to claim 1 to the surface of said silicon or layer in a process for the production of a semiconductor component and circuit thereof.
18. (Withdrawn) A method for etching of silicon surfaces and layers in a process for the production of components in high-performance electronics comprising applying an etching medium according to claim 1 to the surface of said silicon or a layer in a process for the production of a component in high-performance electronics.

19. (Withdrawn-currently amended) A process ~~An etching medium according~~ to claim 5, wherein said solvent is from 15 to 85% by weight based on the total amount of the medium.
20. (Withdrawn-currently amended) A process ~~An etching medium according~~ to claim 5, wherein said carboxylic acid ester is [2,2-butoxy(ethoxy)]ethyl acetate or propylene carbonate.
21. (Withdrawn-currently amended) A process ~~An etching medium according~~ to claim 5, wherein said additive is an antifoaming agent, a thixotropic agent, a flow-control agent, a deaerator or an adhesion promoter.
22. (Withdrawn-currently amended) A process according to claim 8, ~~An etching medium according to claim 3,~~ wherein said organic or inorganic base has a concentration of from 10-45 ~~5 to 48~~% by weight, based on the total amount.
23. (Withdrawn-currently amended) A process ~~An etching medium according~~ to claim 6, wherein said thickener is from 1 to 10% by weight, based on the total amount of the etching medium.
24. (New) A process according to claim 8, wherein said etching medium comprises an organic or inorganic base having a concentration of from 10-45 % by weight, based on the total amount of said etching medium.
25. (New) A process according to claim 8, wherein said alkaline etching medium comprises an organic or inorganic base having a concentration of from 30-40 % by weight, based on the total amount of said etching medium.
26. (New) A process according to claim 8, wherein said alkaline etching medium comprises a thickener from 0.5 to 25% by weight, based on the total amount of said etching medium.
27. (New) A process according to claim 24, wherein said etching medium comprises

- a. 15 to 85% by weight of at least one solvent
- b. from 0.5 to 25% by weight of a thickener and optionally
- c. additives

and wherein said medium forms a paste that is effective for etching at a temperature of from 70 to 150 °C and/or can be activated by the input of energy, and said etching paste is printable.

28. (New) A process according to claim 10, wherein said source of heat is and IR lamp or a hotplate.